

AMENDATORY SECTION (Amending WSR 14-20-050, filed 9/25/14, effective 10/26/14)

WAC 16-301-490 Establishing a crucifer seed quarantine for black leg, black rot, and dormant seed. The production of crucifer vegetable seed is an important industry in Washington state. The economic well-being of that industry is threatened by the introduction of crucifer seed infected with certain bacterial and fungal pathogens. In addition, certain crucifer species produce dormant seed that, if present in a seed lot will persist into subsequent cropping years. The resulting "volunteer" plants have the potential to become established as weeds in Washington state.

The director has determined that a quarantine is needed to protect the Washington crucifer vegetable seed ~~((industry))~~, biofumigant and oil seed industries from the introduction of seed from areas known to be infected with ((certain pathogens)) black leg of crucifers and black rot and from the introduction of crucifer seed containing dormant seed. The quarantine will provide the seed growers in this state with sources of crucifer seed that have been tested and proven to be free from ~~((harmful pathogens and, when appropriate,))~~ black leg and black rot and free from dormant seed.

AMENDATORY SECTION (Amending WSR 15-20-035, filed 9/28/15, effective 10/29/15)

WAC 16-301-495 Definitions. Definitions for some terms in ~~((this chapter))~~ WAC 16-301-490 through 16-301-580 can be found in chapter 15.49 RCW and chapter 16-301 WAC. In addition, the following definitions apply to ~~((this chapter:))~~ these sections and take precedence over conflicting definitions found elsewhere:

"Appropriate pathological testing methods" includes seed testing methods approved for the specific target pathogens (*Phoma lingam* and *Xanthomonas campestris pv. campestris* for black leg and black rot, respectively) by the United States National Seed Health System or the International Seed Health Initiative (ISHI-Veg) of the International Seed Federation.

"Approved treatment methods" includes hot water, hot chlorine or any other method~~((s))~~ that can eliminate the presence of regulated pathogens.

"Crucifer" means all plants in the family Brassicaceae (also known as Cruciferae) and specifically includes all *Brassica* species, *Raphanus sativus* - Radish, *Sinapis alba* and other mustards.

"Crucifer production" means any planting of crucifer seed or seedlings for the purpose of producing seed, oil, commercial vegetables or cover crops.

"Crucifer seed" includes any part of a plant capable of propagation including, but not necessarily limited to, seeds, roots, and transplants.

"Crucifer weed" means any crucifer plant that appears unintentionally in a different crucifer crop or crop growing area, as in the case of volunteers or after planting seed contaminated with other crucifer species.

"Department" means the Washington state department of agriculture (WSDA).

"Director" means the director of the Washington state department of agriculture or the director's designee.

"Dormant seed" means viable true seed that displays a delay in or lack of germination when provided favorable germination conditions for the type of seed in question.

"Owner" means the person having legal ownership, possession or control over a regulated article covered by this chapter including, but not limited to, the owner, shipper, consignee, grower, seed dealer, landowner or their agent.

"Person" means any individual, partnership, association, corporation, or organized group of persons whether or not incorporated.

"Phytosanitary inspection program" means the seed field inspection program administered by the seed program of the department under the authority in RCW 15.49.370 and WAC 16-301-240.

"Regulated area" means those geographic areas that are protected from ~~((the introduction of specified plant pests))~~ regulated diseases by the provisions of this quarantine.

"Regulated article" means, with the exception of the exemptions listed in WAC 16-301-525~~((+4))~~ (1), all crucifer seed; seedlings; roots; transplants intended for seed production, oil production, commercial vegetable production or cover crop use; and crop residue remaining from the harvest of infected crucifer plants.

"Seed lot" means a designated quantity of seed that is uniquely identified by a lot number.

"Seed program" means the Washington state department of agriculture seed program.

"Trial ground" means a specific parcel of land approved by the director through the phytosanitary inspection program for experimental or limited production or increase of crucifer seed and for planting seed lots whose quantity of seed is insufficient to allow for pathological testing.

"True seed" means a mature fertilized ovule consisting of an embryo, with or without an external food reserve enclosed by a seed coat.

"Volunteer" means a crucifer plant that germinates in a crop year subsequent to the crop year it was planted.

AMENDATORY SECTION (Amending WSR 15-20-035, filed 9/28/15, effective 10/29/15)

WAC 16-301-505 Regulated crucifer diseases ~~((regulated by this chapter))~~ and pathogens. (1) **"Regulated diseases"** means those bacterial and fungal diseases of crucifers listed in this section and any new variations or strains of these diseases.

(2) **"Regulated pathogens"** means those bacterial and fungal organisms identified as the causal agents for the diseases listed in this section.

(3) The following bacterial and fungal diseases of crucifers, and any new strains or variations of these diseases are regulated by this chapter:

<u>Disease Common Name</u>	<u>Pathogen Cause Scientific Name</u>
Black leg of crucifers	<i>Phoma lingam</i>
Black rot	<i>Xanthomonas campestris</i> <i>pv. campestris</i>

AMENDATORY SECTION (Amending WSR 15-20-035, filed 9/28/15, effective 10/29/15)

WAC 16-301-515 Crucifer seed quarantine—((Quarantined)) Quarantine area. (1) The quarantine area for the crucifer seed quarantine includes all Washington state counties except Adams, Asotin, Benton, Chelan, Clallam, Columbia, Douglas, Ferry, Franklin, Garfield, Grant, Island, Kittitas, Klickitat, Lewis, Lincoln, Okanogan, Pend Oreille, Skagit, Snohomish, Spokane, Stevens, Walla Walla, Whatcom, Whitman, and Yakima counties.

(2) ~~((Regulated articles imported into Washington state must comply with the regulations of this chapter before transport into a regulated area.))~~ No additional requirements apply within the quarantine area but all regulated articles transported into a regulated area must comply with the regulations of this chapter.

AMENDATORY SECTION (Amending WSR 15-20-035, filed 9/28/15, effective 10/29/15)

WAC 16-301-525 Crucifer seed quarantine exemptions within the regulated areas((—Exemptions)). ((This)) In the regulated areas, the crucifer seed quarantine does not apply to:

(1) ~~((Experiments or trial grounds of the United States Department of Agriculture;~~

~~(2) Experiments or trial grounds of a university such as but not limited to the University of Idaho or Washington State University research stations; or~~

~~(3) Trial grounds of any person, firm or corporation that are approved by the director and established in accordance with WAC 16-301-550;~~

~~(4))~~ Shipments, movements, or transportation of:

(a) Prepackaged crucifer seed in packages of 1/2 ounce or less if the seeds are free of regulated diseases as required in WAC 16-301-530 and 16-301-531; or

(b) Vegetable seedlings offered for sale for home garden use in the regulated areas if the seedlings are free of regulated diseases as required in WAC 16-301-530 and 16-301-531.

~~((5))~~ (2) Research, variety development, variety maintenance or other crucifer production where the entire crop cycle is confined within a building or greenhouse(~~(+~~

~~(6) Seed lots with a maximum weight of five pounds that were in inventory prior to January 1, 2007)).~~

NEW SECTION

WAC 16-301-528 Seed dormancy testing in the western Washington regulated area. Any crucifer seed whose primary uses are for any non-vegetable use in the western Washington regulated area must be tested for the presence of dormant seed.

This testing must be done by either a single or paired germination test that demonstrates freedom from dormant seed.

AMENDATORY SECTION (Amending WSR 15-20-035, filed 9/28/15, effective 10/29/15)

WAC 16-301-530 Planting crucifer seed in the western Washington regulated area—Requirements. (1)(a) It is a violation of this chapter to ~~((plant or))~~ establish crucifer seed that is infected with any regulated disease in the western Washington regulated area.

(b) Any crucifer seed ~~((of a Brassica, Raphanus, Sinapis species or any other genera in the Brassicaceae family))~~ planted or established in the western Washington regulated area whose primary use is for any nonvegetable use must be tested for the presence of dormant seed as required by WAC 16-301-510.

(2) Any person who plans to ship, move, or transport any crucifer seed intended for planting purposes into or within the western Washington regulated area must file a Notice of Intent/Quarantine Compliance form with the seed program before planting or offering the seed for sale.

(3) The Notice of Intent/Quarantine Compliance form filed with the seed program must be accompanied by a copy of the:

(a) Laboratory analysis or some other proof (such as a phytosanitary certificate based upon laboratory testing issued from the state or country of production) demonstrating that the lot is free of regulated diseases; and

(b) Seed analysis certificate(s) showing that the lot is free from dormant seed, if required under WAC 16-301-510.

(4) It is a violation of this chapter for any crucifer seed intended for seed production, oil production, commercial vegetable production or cover crop use to be offered for sale within or into the western Washington regulated area unless accompanied by documentation verifying quarantine compliance.

(a) For small packages such as heat sealed envelopes and tins, quarantine compliance may be placed on a sales invoice or other documentation that is provided to the purchaser of seed. Language must be approved by the seed program.

(b) Larger containers must bear a label issued by the seed program indicating that the seed is in compliance with this chapter.

AMENDATORY SECTION (Amending WSR 15-20-035, filed 9/28/15, effective 10/29/15)

WAC 16-301-531 Planting crucifer seed in the eastern Washington regulated area—Requirements. (1)(a) It is a violation of this chapter to plant ~~((or establish))~~ crucifer seed that is infected with ~~((any regulated disease))~~ black leg of crucifers (*Phoma lingam*) in the eastern Washington regulated area.

(b) Any crucifer seed ~~((of a *Brassica*, *Raphanus*, *Sinapis* species or any other genera in the Brassicaceae family))~~ to be planted in the eastern Washington regulated area must be laboratory tested and found to be free from black leg of crucifers (*Phoma lingam*).

(2) Any crucifer seed ~~((of a *Brassica*, *Raphanus*, *Sinapis* species or any other genera in the Brassicaceae family))~~ to be planted in the eastern Washington regulated area must be tagged with a tag issued by the department indicating that the seed has met the requirements of this chapter.

NEW SECTION

WAC 16-301-534 Transporting regulated articles into a regulated area—Requirements. Regulated articles imported into Washington state must comply with the testing and treatment regulations of this chapter before transport into a regulated area.

AMENDATORY SECTION (Amending WSR 15-20-035, filed 9/28/15, effective 10/29/15)

WAC 16-301-540 Crucifer transplants grown in greenhouses in the regulated areas—Requirements. (1) All crucifer transplants produced in greenhouses in the regulated areas must be subjected to pest control procedures that reduce the presence of diseases or insects that may inhibit identifying regulated diseases.

(2) The interiors of greenhouses in the regulated areas used to produce crucifer transplants must be free of crucifer weeds.

(3) A one hundred meter buffer~~((s))~~, free of crucifer weeds, must surround ~~((all))~~ each greenhouse~~((s))~~ in the regulated areas used to produce crucifer transplants.

AMENDATORY SECTION (Amending WSR 15-20-035, filed 9/28/15, effective 10/29/15)

WAC 16-301-545 Crucifer seed lots that test positive for any regulated disease—Requirements. (1) If a crucifer seed lot tests positive for any regulated disease, the infected seed lot may be treated with an approved ~~((seed))~~ treatment method.

(2) After treatment, the seed lot must be tested for the presence of regulated diseases using appropriate pathological testing methods.

(3) If the pathological testing yields negative test results, the seed lot will be considered in compliance with this chapter.

(4) It is a violation of this chapter to plant seed in the regulated areas that tests positive for any regulated disease subsequent to any approved treatment method.

AMENDATORY SECTION (Amending WSR 15-20-035, filed 9/28/15, effective 10/29/15)

WAC 16-301-550 Planting seed in the western Washington regulated area—Protocols when certain documentation is unavailable. When no documentation exists verifying that a crucifer seed lot is free from regulated diseases, the following protocols must be followed before the seed is planted in the western Washington regulated area:

(1) A crucifer seed lot will be classified as a suspect seed lot if the seed lot lacks the documentation verifying that the lot complies with the crucifer seed quarantine requirements of this chapter.

(2) Suspect seed lots must:

(a) Not be offered for sale in the western Washington regulated area.

(b) Be treated by an approved treatment method.

(c) Be sown in a greenhouse and the seedlings must pass inspection by seed program inspectors before transplanting to the field.

(3) Any greenhouse operation used to grow crucifer seedlings for transplant must:

(a) Physically separate suspect seed lots from other crucifer production within that greenhouse.

(b) Monitor and document the location and identity of each suspect seed lot during production.

(4) It is a violation of this chapter for seedlings from a suspect seed lot to be topped, clipped, chopped or undergo any other treatment to toughen them or reduce their size.

(5) All seedlings from a suspect seed lot that exhibit symptoms of regulated diseases must be physically separated from asymptomatic transplants in that lot.

(6) Before shipping seedlings from a suspect seed lot, the seedlings must be inspected by department seed program inspectors for the presence of regulated diseases.

(a) If no symptoms of regulated diseases are detected during this inspection, the suspect seed lot is considered in compliance with this chapter and may be sold and planted within the western Washington regulated area.

(b) If seedlings display symptoms of regulated diseases, laboratory testing for the diseases is mandatory.

(c) If seedlings from a suspect seed lot test negative for regulated pathogens or diseases after appropriate pathological testing, the suspect seed lot is considered in compliance with this chapter and may be sold and planted within the western Washington regulated area.

(d) If the presence of a regulated disease is confirmed by laboratory testing, all seedlings from a suspect seed lot may be subject to a quarantine order or destruction order under WAC 16-301-570.

(7) Any crucifer seed production fields, plant beds, or greenhouse production that will be planted with or receives production from suspect seed lots that are determined to be free from regulated diseases under subsection (6) of this section must be entered into the Washington state phytosanitary inspection program as required under WAC ~~((16-301-235))~~ 16-301-240.

(8)(a) It is a violation of this chapter to plant seedlings from a suspect seed lot that tests positive for any regulated disease in the western Washington regulated area.

(b) Any suspect seed lot testing positive for any regulated disease may be subject to a quarantine order or a destruction order under WAC 16-301-570.

AMENDATORY SECTION (Amending WSR 14-20-050, filed 9/25/14, effective 10/26/14)

WAC 16-301-555 ~~((Approved))~~ Requirements for the establishment of trial grounds. (1) If a crucifer seed lot has not been tested to determine if it is ~~((disease))~~ free of the regulated diseases as required in WAC 16-301-530 and 16-301-531, and the quantity of seed in the lot is too small for pathology testing to be practical, it must be planted in ~~((an approved))~~ a trial ground ~~((that meets the requirements of the seed program))~~.

(2) Trial grounds may be established for the purposes of, but not limited to, variety maintenance, variety development or other related research.

(3)(a) ~~((The seed program must approve a trial ground before it is established.))~~ Trial grounds must be inspected by the department under the phytosanitary inspection program.

(b) ~~((Failure to obtain approval of a trial ground before it is established is a violation of this chapter and may subject the trial ground to a destruction order under WAC 16-301-570.))~~ Due dates for trial ground inspection applications are as follows:

(i) For western Washington:

(A) Fall plantings application due date is April 15th; and

(B) Spring plantings application due date is June 1st;

(ii) For eastern Washington:

(A) Fall plantings application due date is April 15th; and

(B) Spring plantings application due date is twenty-one days after planting.

(4)(a) Trial grounds must be isolated from crucifer production crops according to the standards set in ~~((Seed Field Minimum Isolation Distances))~~ Isolating Seed Fields in the Columbia Basin of Washington published by the Washington State University (WSU) ~~((cooperative))~~ Extension.

(b) Copies of this publication can be obtained by contacting a WSU extension office.

(5) ~~((A person may plant crucifer seed in an approved trial ground after notifying the seed program, in writing, of their intent to plant for research purposes only. The notification will include an assurance that the person planting crucifer seed in an approved trial ground will comply with the inspection procedures in WAC 16-301-560, the isolation requirements prescribed by the WSU extension publication~~

~~"Seed Field Minimum Isolation Distances," and any other requirements established by the director.~~

- ~~(6))~~ The maximum planting in a trial ground is:
 - (a) One pound per variety for crucifer seed; and
 - (b) One-half acre for crucifer transplants.

AMENDATORY SECTION (Amending WSR 14-20-050, filed 9/25/14, effective 10/26/14)

WAC 16-301-560 Inspection requirements for trial grounds. (1)

~~((Applications for the phytosanitary field inspection of a trial ground must be submitted to the department before September 1 of the year the trial ground is established.~~

~~(2))~~ A minimum of two phytosanitary field inspections of a trial ground must be conducted by the department. These inspections must take place at a minimum:

- (a) During the seedling stage; and
- (b) At the bloom stage.

~~((3))~~ (2) The phytosanitary field inspection application must include:

- (a) A detailed varietal planting plan;
- (b) A description of the exact location of the trial ground;
- (c) For seed not treated with a fungicide that controls black leg disease, the manner in which the trial ground will be isolated from other known crucifer production; ((and))
- (d) The distance by which the trial ground is isolated from other known crucifer production; and
- (e) The method by which volunteers will be controlled in the following year.

(3) The person responsible for the trial ground must monitor the trial ground at a frequency of at least twice monthly. The responsible person must maintain records of these inspections and must make these records available to the department upon request.

If regulated diseases are identified, the responsible person must notify the department within twenty-four hours.

(4) If the field inspections by the department or the person responsible for the trial ground detect any suspect symptoms of regulated pathogens, and identification is confirmed by pathology testing, the trial ground is subject to destruction in whole or in part upon the order of the director.

(a) Infected plant residue must be promptly destroyed by chopping and incorporating it into the soil or by other means approved by the director.

(b) As a further precaution, the department recommends that, to the extent practical, crop residue be destroyed even when a regulated disease is not detected.

(c) The department will consult with pathologists, university personnel and appropriate subject matter experts in determining control measures and appropriate mitigation activities to prevent the spread of regulated diseases from the trial ground site. Such recommendations may be, but are not limited to, foliar applications of fungicides.

(5) A disinfectant must be applied to the:

- (a) Machinery used in the production of the crucifer crop;

- (b) Footwear of all persons entering the trial grounds; and
- (c) Footwear of all persons before traveling from a trial ground to other crucifer fields.

(6) The department will conduct at least one inspection of the trial ground location the following year to ensure control of volunteer crucifer plants has been achieved.

AMENDATORY SECTION (Amending WSR 14-20-050, filed 9/25/14, effective 10/26/14)

WAC 16-301-570 Penalties for violating the crucifer seed quarantine. (1) When the director determines that crucifer seed or a crucifer production area is infected with a regulated disease, the director may issue a quarantine order or notice of destruction. A violation of this chapter may also result in either a quarantine order or notice of destruction as determined by the director and the rules regulating the crucifer seed quarantine. Any costs associated with complying with a notice of destruction or quarantine order is the sole responsibility of the owner and not the responsibility of the department.

(2) The director may issue a notice of destruction:

(a) The notice of destruction will identify the property or seed lot affected.

(b) The notice of destruction will order the destruction of regulated articles or prescribe the terms of entry, inspection, partial destruction and/or treatment of regulated articles.

(c) The notice of destruction may prescribe control measures or other requirements needed to prevent the infection of adjacent properties with a regulated disease.

(d) To ensure that the affected parties comply with the measures required to eliminate a disease caused by regulated pathogens, the director will notify the owner and seed company representatives, if known, regarding the methods of destruction to be used, the extent of the destruction and the safeguards being implemented to prevent the spread of the disease.

(3) The director may order the quarantine of any regulated article or planting area. The director will:

(a) Determine the quarantine conditions;

(b) Determine if a quarantine extension is warranted; and

(c) Prescribe sanitary precautions that will prevent the spread of the suspected regulated disease.

(4) To prevent the spread of the suspected regulated disease, persons entering the quarantined area must follow the sanitary precautions in WAC 16-301-560(5). Entry into the quarantined area is restricted to:

(a) The owner;

(b) Department employees;

(c) University personnel or other plant pathology specialists; and/or

(d) Persons authorized in writing by the director.

(5) Fields placed under a quarantine order:

(a) Must enter the Washington state phytosanitary inspection program as required under WAC ((~~16-301-235~~)) 16-301-240 with all inspection costs borne by the owner.

(b) May be subject to additional inspection, control, isolation, or destruction requirements if the director determines they are needed to prevent the spread of regulated pathogens.

(6) Any owner violating the requirements of this crucifer seed quarantine is subject to the civil and/or criminal penalties as established in chapters 15.49 and/or 17.24 RCW.

AMENDATORY SECTION (Amending WSR 14-20-050, filed 9/25/14, effective 10/26/14)

WAC 16-301-575 Identification of diseased crucifer seeds and infected fields. (1) So that timely investigations may be made, all interested parties, including owners, seed company representatives, and university extension personnel are encouraged to promptly report any suspected infected crucifer fields to the seed program.

(2) The owner of any crucifer crop infected with a regulated pathogen must ((be reported)) report the infection to the seed program within seventy-two hours after the regulated pathogen is discovered.

(3)(a) The seed program may conduct inspections and tests to determine infection of any crucifer seed or production with a regulated disease.

(b) If a WSDA plant services program plant pathologist and a qualified plant pathologist representing a commercial company or owner disagree over the presence of a regulated disease, the company or owner may request a third-party laboratory verification test for a regulated pathogen. A university plant pathologist may recommend the type of third-party laboratory verification test. The third-party laboratory may not be affiliated with either WSDA or the owner of the seed. The verification test must use accepted scientific and professional techniques and will be at the seed owner's expense.

(c) The affected planting area will be placed under quarantine for at least thirty days or until verification testing is completed.

AMENDATORY SECTION (Amending WSR 15-20-035, filed 9/28/15, effective 10/29/15)

WAC 16-301-580 Diseased crucifer seeds and infected fields—Regulations. (1) When the director determines that a field is infected with a regulated pathogen and threatens to infect other fields, the director may issue a notice of destruction prescribing control measures or other requirements needed to prevent the infection of adjacent properties.

(2) Unless the crop is within two weeks of harvest, any crucifer crop within a regulated area that is infected with a regulated pathogen may be subject to immediate destruction, in part or in total. The owner is responsible for the expenses incurred to destroy a diseased crucifer crop.

(3) The following requirements apply to crops that are within two weeks of harvest:

(a) Residues must be destroyed or incorporated into the ground immediately after harvest;

(b) Harvested seed must be isolated from other seed lots until it is treated with ~~((hot water and/or chlorine seed))~~ an approved treatment~~((s))~~ method;

(c) Harvest equipment must be steam cleaned before entering any other fields; and

(d) WSDA personnel in consultation with WSU extension personnel must monitor these postharvest activities.

REPEALER

The following sections of the Washington Administrative Code are repealed:

WAC 16-301-510 Seed dormancy testing.

WAC 16-301-533 Requirements for planting crucifer seed
in the eastern Washington regulated
area.